

LISTING OF THE CLAIMS

We Claim:

1. (Currently amended) A one-piece expandable flat bearing structure ~~formed—by comprising~~ at least partially elastically deformable struts which are separated from each other by openings in the bearing structure, wherein the bearing structure can assume at least one compressed condition and at least one expanded condition and has at least one expansion direction,

characterized in that wherein:

the bearing structure has anchor regions (14) from which spring struts (12) which are elastically resilient with respect to the anchor regions (14) extend to a resiliently deflectable end of the spring struts, a hinge strut (16) adjoining said end, wherein the spring struts (12) and the hinge struts (16) are of such a configuration and arrangement that the spring struts (12) are initially resiliently deflected transversely to the expansion direction during the transition from the compressed condition to the expanded condition by the folding-over hinge struts (16) and finally spring back, while a respective central axis of the hinge struts (16) is simultaneously pivoted about a hinge axis extending transversely with respect to the bearing structure beyond a reference axis which extends within the bearing structure transversely with respect to the expansion direction and transversely with respect to the hinge axis so that both the compressed condition of the bearing structure and also the expanded condition of the bearing structure is stabilized by a spring action emanating from the spring struts (12).

2. (Currently amended) A bearing structure as set forth in claim 1, wherein characterized in that a respective spring strut (12) adjoins both longitudinal ends of a respective hinge strut (16) and said two spring struts (12) are so arranged relative to each other that they exert a moment in the same direction on the hinge strut (16) about the hinge axis.
3. (Currently amended) A bearing structure as set forth in claim 2, wherein characterized in that the two spring struts (12) respectively adjoining a hinge strut (16) are shaped and arranged in point-symmetrical relationship with each other.
4. (Currently amended) A bearing structure as set forth in claim 1, wherein characterized in that the bearing structure forms a peripheral wall of a stent (20).
5. (Currently amended) A bearing structure as set forth in claim 4, wherein characterized in that the expansion direction extends in the peripheral direction of the stent (20) and the reference axis extends parallel or at a shallow angle to the longitudinal direction of the stent (20) while the hinge axis is oriented approximately radially.
6. (Currently amended) A bearing structure as set forth in claim 1, comprising characterized in that it is formed by plastic material.
7. (Currently amended) A bearing structure as set forth in claim 1, comprising characterized in that it is formed by a magnesium alloy.
8. (Currently amended) A bearing structure as set forth in claim 1, comprising characterized in that it comprises a bioresorbable material.

9. (Currently amended) A bearing structure as set forth in claim 1, wherein characterized ~~in that~~ the openings are cut so that the struts (12, 16) are separated from each other by cuts (18).

10. (Currently amended) A bearing structure as set forth in claim 9, wherein characterized ~~in that~~ the cuts are of such a configuration as to afford hinge struts (16) which are S-shaped or W-shaped in the compressed condition.

11. (Currently amended) A bearing structure as set forth in ~~claim 9 or~~ claim 10, wherein characterized ~~in that~~ the cuts have end regions (22; 24) which are of an expanded configuration to reduce the notch effect.

12. (Currently amended) A bearing structure as set forth in claim 1, wherein characterized ~~in that~~ in the proximity of the anchor regions, (14) the spring struts (12) are of a larger cross-sectional area than in the region of their resiliently deflectable ends.

13. (Currently amended) A bearing structure as set forth in claim 12, wherein characterized ~~in that~~ the spring struts (12) steadily taper from the anchor regions (14) towards the resiliently deflectable ends.

14. (Currently amended) A bearing structure as set forth in claim 1, wherein characterized ~~in that~~ the hinge struts (16) are of a substantially uniform cross-section transversely with respect to their central axis.

15. (Currently amended) A bearing structure as set forth in claim 1, wherein characterized ~~in that~~ a transitional region of a cross-section which is reduced in relation to the hinge strut

(16) is provided between a respective resiliently deflectable end of a spring strut (12) and the hinge strut (16) adjoining the resiliently deflectable end.

16. (New) A bearing structure as set forth in claim 9, wherein the cuts have end regions which are of an expanded configuration to reduce the notch effect.